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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/365,342	07/30/1999	ELIZABETH G. HETZLER	G-305	1665

7590 12/15/2003  
PAUL W ZIMMERMAN K1 53  
BATTELLE MEMORIAL INSTITUTE  
P O BOX 999  
RICHLAND, WA 99352

EXAMINER

HAVAN, THU THAO

ART UNIT	PAPER NUMBER
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2672

14

DATE MAILED: 12/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

# Office Action Summary

Application No.

09/365,342

Applicant(s)

HETZLER ET AL.

Examiner

Thu-Thao Havan

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-22 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-11, 13-22 and 25 is/are rejected.
- 7) ☐ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. In view of the Appeal Brief filed on March 24, 2003, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***Drawings***

2. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

### **Claim Objections**

3. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Re claim **5**, the prior art fails to anticipate or rendered obvious the claimed features of a missing strand is observed as a greater gap between remaining strands.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims **1-4, 6-11, 13-22, and 25** are rejected under 35 U.S.C. 102(e) as being unpatentable by Cox (US patent no. 5,751,931).

Re claim **1**, Cox teaches a method of visualizing a relationship between at least two entities (figs. 8 and 11), having the steps of: (a) mapping the at least two entities onto a surface (figs. 13a-13c); (b) providing a relationship record for each of the at least two entities (col. 3, lines 48-67; col. 5, lines 52-67; figs. 4-6); (c) generating a display of the at least two entities together with at least one connector between the at least two entities for said visualizing said relationship from said relationship record (col. 9, lines 4-11; col. 5, lines 52-67; figs. 8 and 11); and (d) said connector having two ends connected to a pair of said at least two entities, said connector having an extension between said two ends, said extension passing out of said surface, said connector having a plurality of strands wherein each of said plurality of strands corresponds to each of a plurality of relationships (col. 9, lines 33-41; col. 12, lines 32-46; figs. 13a-13c

and 19). In other words, Cox teaches the nodes and arcs are displayed with their three dimensional characteristics used to encode data attributes. The use of three dimensional allows multiple glyphs to be associated with each node and link. Several arcs can connect two nodes. Each arc is made up of a series of line segments connecting some number N of points. The number of points will be determined by the total length of the arc, so as to create a smooth-appearing curve. In that an arc can lie below the surface of the globe. If arcs are to be displayed below the surface, then the globe must be translucent so that the arcs will still be visible. In addition, the arcs which are located further from the viewer are dimmed using fog effects. This is a depth-cueing effect that makes more distant objects appear dimmer and thus makes the three-dimensional structure more apparent.

Re claim 2, Cox teaches at least one of said plurality of strands passes out of said surface on one side of said surface and another of said plurality of strands passes out of said surface on an opposite side of said surface (col.2, lines 22-35; fig. 21). In figure 21, Cox discloses the plurality of strands passes from one surface to another surface.

Re claim 3, Cox teaches each strand is distinguished from other strand(s) by a geometric gap therebetween (figs. 13a-13c and 19). In other words, Cox teaches the three dimension provides a means for displaying any number of arcs and allows the user, via interactive control of the viewpoint, to separate the arcs so they do not appear to cross in the display.

Re claim **4**, Cox teaches each strand has an arc height (col. 8, lines 25-47; fig. 8). Cox discloses in figure 8 the link statistics are represented by arcs, such as arc 814, which connect the capitals of the countries. The arcs touch the globe at each end and reach maximal height in the center. This height is used to encode the link statistic, with greater heights representing larger values.

Re claim **6**, Cox teaches each strand is further distinguished with a texture (col. 13, lines 33-45; col. 6, lines 42-47). Cox teaches texture mapping in conjunction with the animation. The display may be animated to sequentially display data relating to different time frames.

Re claims **7-11**, Cox teaches texture is selected from the group consisting of line type, line weight, color, display frequency, and combination thereof as recited in the claims (col. 12, lines 6-11; col. 9, lines 1-11).

Re claim **13**, Cox teaches plurality of strands is displayed as said plurality of strands (figs. 8, 11, 13a-13c and 19).

Re claim **14**, Cox teaches at least two entities are clusters of members, said clusters having centroids, and said connector connects said centroids (col. 9, lines 43-52). Cox discloses the arcs touch the globe at each end and reach maximal height in the center.

Re claim **15**, Cox teaches substrands extend from each of said members to said connector connecting said centroids (col. 6, line 50 to col. 7, line 15). In other word, Cox teaches Point P is located at spherical coordinates which is the distance of P from

the center O of the sphere. The line PT through P perpendicular to the X-Y plane intersects that plane at a point T.

Re claims **16-17**, Cox teaches positioning said display and positioning is selected from the group consisting of rotate, pan, zoom and combinations thereof (col. 8, lines 16-31). Cox teaches the user may vary the phi and theta coordinates of the viewpoint by dragging the mouse while pressing the left mouse button. Dragging the mouse to the right or left increases or decreases theta, while dragging the mouse up and down increases or decreases phi. The effect produced by this mousing action is that mouse motions rotate the globe, allowing it to be viewed from any angle. A modification of this polar-viewing model which would allow users to zoom in on portions of the globe could be readily implemented.

Re claims **18-19**, Cox teaches strands shown on one side of the surface indicate values exceed an upper threshold of a test and the strands on the other side of the surface indicate values lower than a low threshold for said test (col. 11, line 1 to col. 12, line 46).

Re claims **20-21**, Cox teaches a user action may cause the display of all relationships corresponding to a given relationship type and a directionality of a relationship is indicated by line type (col. 11, line 39 to col. 12, line 46). In other words, Cox discloses the user controls the displaying of the glyphs.

Re claim **22**, Cox teaches a user action may cause the display of either a single strand, aggregate strand, or multitextured strands (col. 8, lines 6-15).

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Re claim **25**, Cox teaches mapping is by two-way document/topic iteration logic (col. 3, 48-67). Cox teaches topic iteration logic by disclosing the mapping of network between caller and callee.

### Inquiries

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu-Thao Havan whose telephone number is (703) 308-7062. The examiner can normally be reached on Monday to Thursday from 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (703) 305-4713.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231


Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Thu-Thao Havan  
Art Unit: 2672  
December 9, 2003

  
**MICHAEL RAZAVI**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600